

REMARKS

The Office Action of March 24, 2003 has been reviewed and the Examiner's comments carefully considered. The Examiner is thanked for continuing to indicate that the subject matter of claims 10 and 16-30 defines over the prior art of record and that claims 17-30 are in condition for allowance.

The Examiner indicated that the Applicant's arguments presented in the January 9, 2003 Amendment in reply to the October 9, 2002 Office Action were unpersuasive. After a review of the Examiner's Response to Arguments and the current Office Action, the Applicant respectfully submits that the Examiner is not fully understanding the Applicant's invention.

The drawings stand objected to under 37 C.F.R. § 1.83(a) for failing to show every feature of the invention specified in the claims. Claims 3-5 stand rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter that was not described in the specification in such a way as to enable one skilled in the art to make and/or use the invention. Claims 1-3 and 6-8 stand rejected under 35 U.S.C. § 102(b) for anticipation by the Ramun patent. Claims 1-5 stand rejected under 35 U.S.C. § 102(e) for anticipation by the Kirkpatrick patent. Claims 9, 11-15, and 31-34 stand rejected under 35 U.S.C. § 103(a) for obviousness over the Ramun patent.

The Applicant has amended independent claim 1 to further clarify the invention. According to amended independent claim 1, the invention is directed to a demolition equipment system. The system includes a plurality of equipment bases. Each equipment base forms a part of a separate and distinct demolition equipment unit. The system further includes a plurality of claw tines. Each claw tine is selectively and removably attachable to each equipment base, thus each claw tine is capable of forming a part of each

separate and distinct demolition equipment unit. Each claw tine is movable between an open and closed position.

Dependent claim 2 recites that the plurality of equipment bases includes at least one bucket and at least one grapple base. Dependent claim 3 recites that the at least one grapple base is a two-tine grapple. Dependent claim 4 recites that the at least one grapple base is a three-tine grapple. Dependent claim 5 recites that the at least one grapple base is a four-tine grapple.

Thus, according to the claims, the equipment bases in combination with the claw tines form a distinct and separate bucket and a distinct and separate grapple, where the grapple may be a two-, three-, or four-tine grapple. There is no recitation of a combination bucket and grapple as a single unit, as indicated by the Examiner. In contrast, the present invention provides for a bucket and a grapple as individual units making up the demolition equipment system.

Regarding the drawings, the bucket structure is illustrated in Figs. 1 and 3-13, the three-tine grapple is illustrated in Figs. 18-20, and the four-tine grapple is illustrated in Figs. 21-23. Thus, the drawings clearly illustrate each and every feature of the present claimed invention. The Applicant respectfully requests reconsideration of the objections to the drawings.

Regarding the description in the specification, page 16 describes the three-tine grapple illustrated, page 17 describes the four-tine grapple, and pages 6 and 13 describe the bucket. Thus, the specification clearly describes each and every feature of the present claimed invention sufficiently for one skilled in the art to make and/or use the invention. The Applicant respectfully requests reconsideration of the rejection of the claims under 35 U.S.C. § 112, first paragraph.

In light of the above clarifications of the present invention, the Applicant reiterates the arguments presented in the January 9, 2003 Amendment in relation to the rejections over the Ramun and Kirkpatrick patents.

Regarding the anticipation rejections over the Ramun patent (the same inventor as the present application), the Examiner relies on the bucket 14 as one claw tine and utilizes the pair of parallel tines 21 as the opposing tines. The Examiner's rejection is respectfully traversed for the following reasons.

Claim 1 of the present application is directed towards a demolition equipment system which has a plurality of equipment bases with each base forming at least a part of a separate and distinct demolition equipment unit, and a plurality of claw tines with each claw tine selectively and removably attachable to an equipment base for forming part of each distinct demolition equipment unit. The Ramun patent does utilize claw tines on a bucket attachment; however, the bucket attachment in the Ramun patent is the only demolition equipment unit taught or suggested therein. There is no teaching or suggestion of a plurality of equipment bases with each equipment base forming at least a part of a separate and distinct demolition equipment unit having selectable claw tines removably attachable thereto as in the present claimed invention.

The present claimed invention is intended to allow the operator to form distinct equipment units. The Examiner's stretched interpretation of the bucket as a claw tine together with the opposing tines formed by parallel tines 21 still does not meet the limitations in independent claim 1 of distinct demolition equipment units. Whether the Examiner wishes to categorize the Ramun patent as disclosing a bucket piece of equipment or a grapple piece of equipment, it is still the same single demolition equipment unit. There is no teaching or suggestion of the multi-base/multi-unit system of the present claimed invention.

Claim 2 depends from independent claim 1 and further defines that the separate bases include a bucket base and a grapple base. As discussed above, the Ramun patent does not disclose distinct bases and cannot, in any reasonable interpretation, be read on the bucket base and the separate grapple base as set forth in claim 2. Claims 3 and 6-8 depend directly or indirectly from independent claim 1 and are patentable for the same reasons set forth above for independent claim 1.

Regarding the anticipation rejections over the Kirkpatrick patent, the Kirkpatrick patent teaches that four-tine and three-tine grapples are known in the art. The existence of two-, three-, four-, and five-tine grapples in the prior art is not disputed. However, the Kirkpatrick patent does not teach or suggest key features of the present invention, which are the construction of a demolition equipment system forming separate and distinct equipment units incorporating the same tines.

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Regarding the obviousness rejections over the Ramun patent, the Examiner suggests that it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the specific claimed ranges since discovering the optimum workable ranges involve only routine skill in the art. The Applicant respectfully disagrees.

First, independent claim 11 of the present invention is directed towards the claw tine of the present invention and requires the physical angular rotation of the claw body between the open and closed position of at least 75 degrees. The claw tine shown in the Ramun patent has a total angular rotation between the open and closed position of less than 70 degrees. The Ramun patent does not teach the angular rotation set forth in independent claim 11. Due to the physical constraints of the tine disclosed in the Ramun patent, this prior art tine does not and cannot meet the claimed opening requirement.

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Furthermore, the claimed opening angular rotation is not an optimization of the existing structure. The structure disclosed in the prior art Ramun patent cannot open up beyond the 70 degree rotation, such that the structure defining the opening range of at least 75 degrees is more than a mere optimization of the prior art claw tine. There is no teaching or suggestion in the Ramun patent, or in the Examiner's stated rejection, of what one of ordinary skill in the art would modify in the prior art to allow for the increased opening set forth in independent claim 11. It is only the Applicant's claimed invention that teaches or suggests this structure.

Dependent claim 12 further defines the ratio of the hydraulic cylinder to the connection point. There is no teaching or suggestion of why one of ordinary skill in the art would modify the existing structure of the Ramun patent to fall within this claimed limitation. This is not a mere optimization of the operating parameters of the prior art structure. It is a distinctly different structure from that found in the prior art, and the Examiner's suggested modifications are not supported anywhere in the prior art. The fact that it may be physically possible to modify the prior art structure to fall within the present claimed invention does not support the Examiner's suggestion that such a modification is obvious. Dependent claims 9 and 12 are believed to further distinguish from the Ramun patent for these reasons. Dependent claims 13 and 14 further define the opening rotation of the present invention, which further distinguishes the tine of the present claimed invention from the prior art tine.

Dependent claim 15 further defines that the maximum holding force of the claw tine is located at a position between 25 and 40 degrees from the closed position. The Examiner does not suggest why one of ordinary skill in the art would modify the structure of the Ramun patent in an attempt to meet this claimed structure. Some of the Applicant's

disclosure, which identifies the advantage of this structure, represents more than a mere optimization of the prior art operating parameters.

Independent claim 31 specifically defines that the maximum holding force of the claw tine is positioned about a third ($1/3$) of the total rotation of the claw tine body from the closed position and is believed to further distinguish the present invention from the teachings of the Ramun patent for the same reasons discussed above in connection with dependent claim 15. Claims 32 and 33 each depend from claim 31 and further define the total angular rotation of the claw body, which is not found in the Ramun patent, similar to that discussed above in connection with dependent claims 9 and 12. Claim 34 depends from claim 31 and is allowable for the reasons discussed above in connection with independent claim 31.

The Examiner's obviousness rejections of these claims in view of the teachings of the Ramun patent are not fairly supported by a reasonable interpretation of the Applicant's own prior art patent. The prior art set forth in the Ramun patent does not teach or consider any geometric design characteristics. The present invention defines design criteria which address shortcomings in the physical structures of the prior art devices. The Examiner has merely dismissed the specific claim limitations, suggesting that these are mere matters of optimization. However, the claimed parameters define unique structural characteristics of the tine of the present claimed invention and these characteristics are not taught, suggested, or even addressed in, or possible with, the existing prior art structure. It is not clear how a prior art tine that fails to open up beyond 70 degrees can be optimized to operate in a range of at least 75 degrees of opening rotation, between 75 and 100 degrees of opening rotation, and/or 85 degrees as set forth in several of the selected claims. The "optimization" suggested by the Examiner is a complete re-design of the tine found in the prior art without any teaching or

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suggestion to do so other than the Applicant's own disclosure. As discussed in the specification, there are other operating parameters associated with modifying each of these features.

CONCLUSION

Reconsideration of the Examiner's objections and rejections is respectfully requested for all of these reasons. Claims 1-34 remain in the application and favorable action is respectfully requested.

Respectfully submitted,

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